

THAT WHICH IS CLAIMED IS:

1. A microwave monolithic integrated circuit (MMIC) package comprising:
 - a MMIC;
 - a base plate that is matched as to its
 - 5 coefficient of thermal expansion (CTE) with the MMIC;
 - a solder preform contained on the base plate, said MMIC being mounted on the solder preform; and
 - a chip cover covering the MMIC, wherein the base plate and chip cover are configured with
 - 10 respective portions that engage each other and such that any pads on said MMIC are exposed for wire and ribbon bonding thereto, wherein the base plate and MMIC are secured together by a solder flow process from said solder preform.
2. A microwave monolithic integrated circuit package according to Claim 1, wherein said base plate is formed from one of copper tungsten (CuW) or aluminum silicone (AlSi) alloy.
3. A microwave monolithic integrated circuit package according to Claim 1, wherein said base plate is about 10 to about 15 mil thick.
4. A microwave monolithic integrated circuit package according to Claim 1, wherein said chip cover is formed of plastic.
5. A microwave monolithic integrated circuit package according to Claim 1, wherein said solder preform is formed from a gold-tin alloy.

6. A microwave monolithic integrated circuit package according to Claim 1, wherein said solder preform is about 1 to about 2 mil thick.

7. A microwave monolithic integrated circuit package according to Claim 1, wherein said base plate and chip cover are secured to each other by the solder preform during a solder flow process.

8. A microwave monolithic integrated circuit package according to Claim 1, wherein said base plate includes side rails that engage said chip cover.

9. A microwave monolithic integrated circuit package according to Claim 1, wherein and said chip cover includes overlap rails that engage said chip cover.

10. A microwave monolithic integrated circuit (MMIC) package comprising:

a MMIC;

5 a substantially rectangular configured base plate that is matched as to its coefficient of thermal expansion (CTE) with the MMIC, said base plate including opposing side rails that extend along a portion of formed edges;

10 a solder preform contained on the base plate, said MMIC being mounted on the solder preform; and

15 a chip cover covering the MMIC, and secured on said side rails of said base plate, and having overlap legs extending down to said base plate, wherein the base plate, side rails, chip cover and overlap legs are configured such that any pads on said MMIC are exposed for wire and ribbon bonding thereto.

11. A microwave monolithic integrated circuit package according to Claim 10, wherein said base plate is formed from one of copper tungsten (CuW) or aluminum silicon (AlSi) alloy.

12. A microwave monolithic integrated circuit package according to Claim 10, wherein said base plate is about 10 to about 15 mil thick.

13. A microwave monolithic integrated circuit package according to Claim 10, wherein said solder preform is about 1 to about 2 mil thick.

14. A microwave monolithic integrated circuit package according to Claim 10, wherein said base plate and MMIC are secured together by a solder flow process with said solder preform.

15. A microwave monolithic integrated circuit package according to Claim 10, wherein said base plate and top cover are secured together by a solder flow process with said solder preform.

16. A method of forming a monolithic integrated circuit (MMIC) package comprising the steps of:

5 providing a base plate that is matched as to its coefficient of thermal expansion (CTE) with a MMIC to be packaged;

placing a solder preform onto the base plate;

placing a MMIC onto the solder preform;

10 placing a cover onto the MMIC to cover the chip, wherein the base plate and cover are configured such that any pads on the MMIC are exposed for wire and ribbon bonding thereto; and

heating to flow the solder and secure the MMIC to the base plate.

17. A method according to Claim 16, and further comprising the step of heating within a eutectic solder oven.

18. A method according to Claim 16, and further comprising the step of securing the base plate and chip cover to each other by a solder preform during a solder reflow process.

19. A method according to Claim 16, and further comprising the step of forming the base plate from one of copper tungsten (CuW) or aluminum silicon (AlSi) alloy.

20. A method according to Claim 16, and further comprising the step of forming the base plate about 10 to about 15 mil thick.